GOVERNMENT OF ANDHRA PRADESH
ABSTRACT

AHDD&F Department – The Andhra Pradesh Aquaculture Seed (Quality Control) Rules, 2020 - Notification - Orders - Issued.

ANIMAL HUSBANDRY, DAIRY DEV. & FISHERIES (FISH) DEPARTMENT

G.O.MS.No. 46 Dated: 10-12-2020.

Read the following:

1. From the Commissioner of Fisheries, Vijayawada Lr. No. 916/C/2020, Dated. 14.08.2020.
2. The Andhra Pradesh Aquaculture Seed (Quality Control) Act, 2006 (as amended in Andhra Pradesh Ordinance No. 10 of 2020).
3. From the Commissioner of Fisheries, A.P., Vijayawada, Lr.No.916/C/2020, Dt:15.10.2020.

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O R D E R:-

The following Notification will be published in an Extra-Ordinary Issue of the Andhra Pradesh Gazette, dated: 10.12.2020.

N O T I F I C A T I O N

In exercise of the powers conferred by Section 29 of the Andhra Pradesh Aquaculture Seed (Quality Control) Act, 2006 and in supersession of the Andhra Pradesh Aquaculture Seed (Quality Control) Rules, 2006, the Government hereby make the Andhra Pradesh Aquaculture Seed (Quality Control) Rules, 2020 which are appended to this notification.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

Dr. POONAM MALAKONDAIAH
SPECIAL CHIEF SECRETARY TO GOVERNMENT (FAC)

To
The Commissioner of Printing and Stationary, A.P., Vijayawada.
(with a request to send 100 copies to Government and 250 copies to the Commissioner of Fisheries, A.P Vijayawada)

Copy to:
The Commissioner of Fisheries, A.P., Vijayawada.
The PS to M(AHDD&F)
The P.S to Spl. Secretary to C.M.
P.S. to Spl. C.S to Government (FAC), AHDD&F Department.
All the District Collectors.

(P.T.O)

All the Departments of Secretariat.
All the Heads of the Departments.
The Law (F) Department, A.P Secretariat, Velagapudi.
The Secretary to Governor, Raj Bhawan, Vijayawada.
The P.S.to Secretary to Legislature, Legislature Secretariat, Velagapudi.
SF/SC.

//FORWARDED:: BY ORDER//

SECTION OFFICER

(G.O. Ms. No.46, AHDD&F(Fish) Dept., Dt: 10.12.2020)

CHAPTER-I
PRELIMINARY

1. **Short Title and Commencement**:-
   (1) These rules may be called the Andhra Pradesh Aquaculture Seed (Quality Control) Rules, 2020.
   (2) They shall come into force at once.

2. **Definitions:-** In these rules, unless the context otherwise requires:
   (1) "Act" means the Andhra Pradesh Aquaculture Seed (Quality Control) Act, 2006
   (2) "APSADA" means the Andhra Pradesh State Aquaculture Development Authority established under APSADA Act, 2020 and rules made thereunder.
   (3) "Aquaculture Seed Business Operations" means all the operations/activities undertaken for carrying out aquaculture seed business;
   (4) "Aquaculture Seed Business Operators" means all person/ persons/ firms / companies involved directly or indirectly in the aquaculture seed business operations;
   (5) "Fee" means any fee stipulated in these rules;
   (6) "Form" means form annexed to these rules or annexed to the Andhra Pradesh State Aquaculture Authority Rules, 2020;
   (7) "Notification" means a notification published in the Andhra Pradesh Gazette;
   (8) Words and expressions used herein and not defined, but defined in the Andhra Pradesh Aquaculture Seed (Quality Control) Act, 2006 or the Andhra Pradesh Aquaculture Seed (Quality Control) (Amendment) Ordinance, 2020 or the Andhra Pradesh State Aquaculture Authority Act, 2020 or the Andhra Pradesh State Aquaculture Authority Rules, 2020, shall have the meaning assigned to them in that Ordinance, Act or Rules as the case may be.

CHAPTER-II
FUNCTIONS & POWERS OF AUTHORITIES, COMMITTEES

3. **State Level Aquaculture Seed Committee:**
   (1) Government shall have the powers to nominate the non-official members of the State Level Aquaculture Seed Committee (herein after called "State Level Committee")
   (2) Duration of term of members of the State Level Committee:
      (i) Ex-officio members shall continue to be the members as long as they hold the post by virtue of which they became members of the State Level Committee.
      (ii) The duration of the term for non-official members shall be two (2) years.
      (iii) In case of vacancy in the State Level Committee, it shall be filled and the term of nomination shall be two years from the date of nomination.

Provided further that even if some of the non-officials members are nominated at different times to the State Level Committee, the term of two years in their case shall be reckoned from the date on which the notification constituting the Authority was first issued.

(3) Meetings of the Authority

(i) To the extent possible the State Level Committee shall meet at least once in three (3) months.

(ii) Chairman is empowered to fix date and venue of the meeting.

(4) Power to call meetings

(i) The Chairman may, at any time, call a meeting of the State Level Committee.

(ii) As per requirement, the Chairman may invite any officer of the outside the State Level Committee or any person having sufficient knowledge, experience or background in the subject relating or relevant to any matter under consideration of the State Level Committee.

(iii) As far as possible, at least seven (7) clear days before meeting of the State Level Committee, intimation of the time and place of the intended meeting shall be sent to the members.

(5) Quorum

(i) No business shall be transacted at a meeting of the State Level Committee unless there are at least eight (8) members present at such meeting.

(ii) If at any time the number of members present at a meeting is less than the number of members specified in clause (i), the person presiding shall adjourn the meeting to a date not later than three (3) days from the date of such meeting after informing the members of the date, time and place of the adjourned meeting. It shall thereupon be lawful for the person presiding at such adjourned meeting to dispose of the business intended to be transacted at the original meeting, irrespective of the number of members present.

(6) Chairman of meetings: The Chairman shall preside over every meeting of the State Level Committee and in his absence the Chairman may nominate anyone of the official member of the State Level Committee to preside over the meeting.

(7) Agenda

(i) The Member-Secretary shall arrange to prepare the agenda for the meeting and upon approval of the Chairman shall arrange to circulate the agenda items among the members of the Authority well before a meeting of the Authority.

(ii) Items which are not listed in the agenda shall not be transacted at a meeting of the Authority without the permission of the Chairman.

(8) Record of business

(i) A record of all items of business transacted by the State Level Committee shall be maintained by the Member Secretary and copies of such record shall be forwarded to the Government as and when such directions are given by the Government.

(ii) The record of business is transacted at every meeting of the State

Level Committee shall be signed by the Chairman or the one who presided over such meeting.

(9) **Functions and Powers of the State Level Aquaculture Seed Committee:-** The State Level Committee shall have the following functions and powers:

(i) to advise the Controlling Authority on implementation of the Act and to provide technical basis for decision making by the Controlling Authority.
(ii) to monitor and evaluate the implementation of the Act in the State.
(iii) to provide independent technical and scientific advice and expert inputs to the Controlling Authority for the effective implementation of the Act.
(iv) to propose establishment of subsidiary bodies to work on specific technical issues or to provide a specified output.
(v) to recommend third party technical agencies to carry out various tasks like sample collection, sample analysis, etc.
(vi) to obtain information on Aquaculture Seed production and other relevant data and to interpret the same to advise the Controlling Authority for effective implementation of the Act.
(vii) to form sub-committees / to constitute teams and to assign some of its functions to them.
(viii) the sub-committees/ teams constituted under clause (vii) shall have the powers listed under sub-rules (ii) to (vi).

4. Functions and Powers of the Aquaculture Seed Controlling Authority:- The Aquaculture Seed Controlling Authority (herein after called as "Controlling Authority") shall be the overall executive Authority of the Act at State level and shall have the following functions and powers:

(1) to take all necessary measures to implement the provisions of the Act and these rules in the State;
(2) to monitor, regulate and promote the production, distribution and sale of quality Aquaculture Seed in the State;
(3) to arrange for preparation of quality standards for Aquaculture Seed of any species as per the procedure laid under these rules **(see Rule 7);**
(4) to examine and dispose the appeals preferred by any aggrieved licensee/applicant or any other person.
(5) to carry out any other function.
(6) Controlling Authority shall have the powers required to carry out the above functions.

5. Functions and Powers of the District Level Aquaculture Seed Committee:- The District Level Aquaculture Seed Committee(herein after called as "District Level Committee") shall have the following functions and powers:

(1) to enforce the provisions of the Act and Rules in the District;
(2) to monitor, regulate Aquaculture Seed Business Operations in the District;.
(3) to monitor and regulate the production, distribution and sales of quality aquaculture seed in the District;

(4) to ensure that the Aquaculture Seed sold or intend to be sold in the District comply with the quality standards as per the provisions of the Act and these rules;
(5) to constitute teams, if necessary, with the officers of line departments for effective implementation of the provisions of the Act and these rules;
(6) to issue licenses and endorse licenses for aquaculture seed business operations in the District;
(7) to suspend / cancel licenses;
(8) to order to collect, analyse samples and to accredit/ certify aquaculture seed in the District;
(9) to issue orders to stop/ close any Aquaculture Seed Business Operations in the District;
(10) to ensure all the Aquaculture Seed produced in other states or other countries and sold in the State comply with the quality standards as laid down under these Rules;
(11) to inspect and audit any hatchery/LRC or any other facility connected with aquaculture seed production for compliance to the quality standards in the District;
(12) to enter and inspect physical facilities, inputs, brooders, aquaculture seed, records of any hatchery/LRC or any other facility connected with aquaculture seed production in the District;
(13) impose fines and penalties to any hatchery/LRC or any other facility connected with aquaculture seed production in the District in case of violations of the provisions of the Act and these rules;
(14) Constitute committee or sub committees as and when required;
(15) to do all such other things which are necessary for the effective implementation of the Act and these rules in the District;

6. **Powers, Role and Responsibilities of Aquaculture Seed Inspector:** The Aquaculture Seed Inspector (hereinafter called as "Seed Inspector") is the field level enforcing officer under the Act and these rules and shall have the following functions and powers:
(1) to execute the provisions of the Act and these rules at field level;
(2) to assist the District Committee for issue of licenses/endorsements for Aquaculture Seed Business Operations in the District;
(3) to assist in the District Committee in monitoring and regulating the Aquaculture Seed Business Operations in the District;
(4) the Seed Inspector shall have the functions, role, and responsibilities as described under Section 13 of the Act;
(5) the Seed Inspector shall have all the powers required to carry out the functions assigned to him/her;
(6) the Seed Inspector shall have any other power assigned to him/her by the Controlling Authority;

CHAPTER-III
QUALITY CONTROL, SAMPLE COLLECTION & LABORATORIES

7. **Quality Standards of Aquaculture Seed:**
(1) All the Aquaculture Seed sold or intend to be sold in the State shall comply with the Quality Standards as laid down in **Annexure-II** of these rules;

(2) In case of non-availability of Quality standards for the seed of any species, the Controlling Authority shall prepare quality standards with the help of Fishery Faculty of Sri Venkateswara Veterinary University, SIFT, Labs/Institutes of Fisheries Department, ICAR Institutes and other research/technical Institutes and the State Level Committee shall approve Quality Standards for seed of new species. The Controlling Authority shall issue executive orders to bring Quality Standards in to effect.

(3) The State Level Committee shall have the powers to make necessary modifications to the quality standards of any Aquaculture Seed and the Controlling Authority shall issue executive orders for such modifications to take effect.

8. Regulation and Control of collection and sale of Wild Aquaculture Seed and Brooders:

(1) For conservation of natural aquatic resources and to promote natural recruitment of native species, there shall be a ban collection of wild aquaculture seed for commercial aquaculture purposes. Any person/persons/ firm / company involved in the collection and sale of wild aquaculture seed shall be punishable under this Act and these rules.

(2) Department of Fisheries/ Andhra Pradesh Fisheries University / Indian Council of Agriculture Research may collect wild aquaculture seed for Research & Development purpose.

(3) In case if no threat is envisaged for natural recruitment, the State Level Committee may permit collection of aquaculture seed of any specific species for a limited time period. The Controlling Authority shall issue executive orders to give effect to the decision of the State Level Committee.

(4) The seed collection under the provisions of sub-rule (3), must be stocked within the State only. No permission shall be granted for the transport of the seed to other States.

(5) Wild brood stock collected from the State shall be used within the state and shall not be transported out of the State under any circumstances.

(6) In case if no threat is envisaged for natural recruitment, the State Level Committee may give need based exemptions to sub-rule (5).

9. Quality Standards of Ornamental Seed: The State Level Committee shall have the powers to approve quality standards of ornamental seed. As and when Quality Standards for Ornamental Seed are approved by the State Level Committee, the Controlling Authority shall give effect to the Quality Standards by means of executive orders.

10. Sample Collection and Analysis Procedures:

(1) The procedure of giving notice for collection of the sample, collection, packing, sealing, marking, labelling, forwarding, etc. as described under the **Section 16** of the Act shall be followed.

(2) The Seed Inspector/ Sample Collector shall collect samples as per the schedule allotted to him/her through the system generated randomized method.

(3) Sampling Frequency:

(i) There is no fixed frequency for the collection of samples from licensees.

(ii) Samples are to be collected as and when required, however at least four samples are to be collected from each Licensee in a year, preferably once in every quarter. There is no limit on maximum samples that can be collected from a licensee.

(iii) Sample collection is to be done by Sample Collector of third party technical agencies or Seed Inspector as per the system generated randomization schedule. (please see **APSADA Rule 17)**

(4) Cost of Aquaculture Seed Sample shall be paid to the Licensee in cash and receipt is to be obtained and shall issue a receipt of acknowledgement.

(5) Sample size, container type, and model, sealing method as described under the **APSADA Rule18(2)** shall be followed.

(6) The procedure and process described under **Section 17 of the Act** read with **APSADA Rule 19** shall be followed by the Analyst for analysis and report of Aquaculture Seed samples.

(7) Procedure to be followed by the Licensing Authority in case of receiving a request from Licensee for analysis of dead sample by referral Laboratory described under the **APSADA Rule 20** shall be followed.

(8) Other procedures like time period for preserving the sample and disposal of sample etc., as described under the **APSADA Rule 19** shall be followed.

11. Seed Analysis Laboratories:-

(1) The list of Regional Aquaculture Seed Analysis Laboratories and Referral Aquaculture Seed Analysis Laboratories along with fee payable for various parameters are given in **Annexure-IV** of these rules.

(2) The District Committee shall empanel the required number of private aquaculture seed analysis laboratories in the District and display the list on the web portal. One portion of the live sample collected from Licensee shall be sent to the empanelled aquaculture seed analysis laboratories as described under clause (iii) of sub-section (6) of Section 16 of the Act.

12. Functions of Regional and Referral Aquaculture Seed Analysis Laboratory:

(1) The Regional and Referral Aquaculture Seed Analysis Laboratory (hereinafter called as Regional Laboratory and Referral Laboratory respectively) is the facility in which the Aquaculture Seed samples are analysed under provisions of the Act and these rules.

(2) The Seed Analyst at such Regional and Referral Laboratory shall follow the procedure described in detail under the **APSADA Rule 19** for analysis of the samples received by him/ her and report the results of analysis thereafter.

(3) **APSADA Form No. 27** shall be used for forwarding the sample to Regional Laboratory and empanelled laboratory. **APSADA Form No. 28**

shall be used for forwarding the dead sample to Referral Laboratory. **APSADA Form No.32** shall be used for sending the report of analysis.

13. Aquaculture Seed Quality Control Monitoring Cell shall be established at the Office of the Seed Controlling Authority for day-to-day monitoring of the implementation of the Ordinance and these Rules. This Cell shall issue necessary clarifications/instructions to District Committee /Seed Inspector /Seed Analysts/others, to do liaison work, obtain data, compile reports and carryout all the related work at State Level.

14. Terms and conditions to be complied by Licensees:

(1) Every hatchery / larval rearing **shall** comply with the norms mentioned in the **Annexure –I.**

(2) Every Licensee shall maintain the following records: -

(i) Technicians & Staff Particulars
(ii) Safety Standards measures being taken
(iii) SOPs / Protocols being followed
(iv) In-house laboratory analysis results of every batch of aquaculture seed produced
(v) Inputs being used
(vi) Indents and Supply orders
(vii) Bill books / Invoices
(viii) Sales Register
(ix) Annual Turnover Register
(x) Accounts Register
(xi) Audit Reports
(xii) Inspection Register

CHAPTER –IV
AQUACULTURE SEED BUSINESS OPERATIONS

15. Classification of Aquaculture Seed Business Operations and Fee payable:

The Classification of Aquaculture Seed Business Operations along with fee payable for license/ endorsement, certification (accreditation) of the facility / certification of the seed are as follows:-

(1) Category-1: Shrimp Hatchery of less than 40 million PL per year
(i) License Fee - Rs. 1.00 lakh
(ii) Endorsement Fee - Rs. 0.50 lakh

(2) Category-2: Shrimp Hatchery of 40 to 100 million PL per year
(i) License Fee - Rs. 3.00 lakh
(ii) Endorsement Fee - Rs. 1.50 lakh

(3) Category-3: Shrimp Hatchery of more than 100 million PL per year
(i) License Fee - Rs. 5.00 lakh
(ii) Endorsement Fee - Rs. 2.50 lakh

(4) Categoy-4: Small scale Fish Hatchery (1 to 10 million spawn per year)

(i) License Fee - Rs. 0.20 lakh

(ii) Endorsement Fee - Rs. 0.10 lakh

(5) Category-5: Large scale Fish Hatchery (more than 10 million spawn per year)

(i) License Fee - Rs. 0.50 lakh

(ii) Endorsement Fee - Rs. 0.25 lakh

(6) Category-6: Backyard Hatcheries (less than 1 million per year) (any species)

(i) License Fee - Rs. 0.10 lakh

(ii) Endorsement Fee - Rs. 0.05 lakh

(7) Other Services:

(i) Certification (Accreditation) of hatchery / Seed production unit (pl see sub-rule 3 of Rule 23 of APSADA)

(a) Certification Charges - Rs. 1.00 lakh

(b) Revocation of Suspension- Rs. 0.50 lakhs

(ii) Certification of Seed (pl see sub-rule 4 of Rule 23 of APSADA):

(a) Certification Charges - Rs. 1.00 lakh

(b) Revocation of Suspension- Rs. 0.50 lakhs

CHAPTER – V
ENDORSEMENTS/ LICENSE

16. Issuance of Endorsement/ Licenses:

(1) Endorsements/ Licenses issued under these rules shall be governed by Section 8 of the Act.

(2) Endorsement/ Licenses to Aquaculture Seed Business Operations under this Act and these rules shall be issued by APSADA.

(3) The detailed procedure described under Sub-rule (15) of Rule 12 of APSADA for Endorsement and sub-rule (16) of Rule 12 of APSADA for issuance of License shall be followed in this regard.

(4) Fees payable for Licenses / Endorsements/ Accreditation / Certification are given under Rule 15 and these fees are likely to be revised from time to time as per the procedure described under Rule 31 of APSADA**.**

17. Responsibilities of the Licensee: All the aquaculture seed business operators shall have to fulfill the responsibilities listed under the Section 13A of the Act.

18. Empanelment of third party Agencies:

(1) Any function/ task, under the Act and these rules, like collection of sample, analysis of sample for quality control, accreditation and certification or for any other purpose may be outsourced to Third Party Agency.

(2) Selection of the Third Party Agency shall be done by the Technical Advisory Committee of APSADA under Rule 29 of APSADA.

(3) Duties of the third party agency: Rendering services like sample collection, sample analysis, assisting in inspections, reporting, assistance in accreditation and certification process, assistance in evaluation or any other function/services as entrusted by the Controlling Authority.

19. Procedure to be followed by the Aquaculture Seed Inspector for breaking open any premises in the case of non-cooperation by the Licensee:

(1) This option shall be exercised only if the owner or any person in occupation of the premises refuses to allow the collection of sample(s).

(2) In case of non-cooperation of the Licensee during the visit of Sample Collector, authorized by the District Committee, he or she shall inform the Aquaculture Seed Inspector; in case of non-cooperation of the Licensee during the visit of Seed Inspector or on receipt of such information from Sample Collector, the Seed Inspector shall inform the Designated Committee about the incident and shall intimate them about the details such as place, date and time of the process.

(3) As far as possible, the process shall be carried out during day time only. Under emergency conditions it may be carried out during night time also.

(4) The men and material required for the process shall be mobilized by the concerned Seed Inspector well before the proposed date of the process.

(5) The process shall be carried out only in the presence of the Designated Committee (as designated under sub-rule (8) of Rule 14 of APSADA).

(6) Care shall be taken to cause no/ minimal damage to civil structure or any other material while carrying out the process.

(7) The entire process shall be videographed invariably.

(8) The sample shall be collected and / or seizure of the property shall be done after breaking open the premises.

(9) The inquest report shall be prepared **(APSADA Form No. 34)** by the Designated Committee.

(10) The Aquaculture Seed Inspector, after completion of the Inquest, shall submit Inspection Report **(APSADA Form No. 35)** online along with Inquest Record/ Report within three (3) days from the date of completion of Inquest to the Licensing Authority for information and further necessary action.

(11) Upon receipt of such inquest report, the Licensing Authority shall take action as per the provisions under Offenses and Penalties.

CHAPTER VI
ACCREDITATION AND CERTIFICATION

20. Accreditation:

(1)All the Aquaculture Seed Hatcheries and Larval Rearing Centres, must obtain accreditation.

(2)The procedure for obtaining accreditation (referred as certification of facilities in APSADA) described under **sub-rule (3) of Rule 23 under APSADA** shall be followed.

(3)Fee payable for accreditation is given under **Rule 15.**

21. Certification:

(1) The Aquaculture Seed of the species mentioned under **Annexure- VI** must be certified by APSADA and the sale of uncertified seed of these species shall be banned.

(2) State Level Committee shall have the powers to add or delete any species in the **Annexure VI**.

(3) The Aquaculture Seed produced from accredited Hatcheries and Larval Rearing Centres shall only be certified by APSADA by following the procedure described under sub**-rule (4) of Rule 23 under APSADA.**

(4) Fee payable for certification is given under **Rule 15.**

CHAPTER - VII
OFFENSES & PENALTIES

22. Offences and Penalties:

(1) Offences and penalties are listed in the **Annexure-V.**

(2) The penalties are likely to be revised from time to time by following the procedure described under **Rule 31 of APSADA.**

23. Seizure and Forfeiture of the stock:-

(1) Offenses for which the Aquaculture seed is to be seized/forfeited is given in the **Annexure-V.**

(2) Procedure as described under Rule. 25 of APSADA shall be followed by the Seed Inspector for seizure and forfeiture of the stock.

24. Cancellation/Suspension of Endorsements/ Licences:

(1) If the Licensee commits an offense for which the Endorsement / License is liable to be suspended/cancelled as per the provisions of the Act or these rules, a show-cause notice (APSADA Form-49) shall be issued to him/her online to show the reasons that why the endorsement/ license should not be suspended or cancelled, as the case may be.

(2) The Licensee shall submit a reply to the show-cause notice with evidences, if any, within **thirty (30)** days in writing (APSADA Form-51) from the date of receipt of show-cause notice.

(3) The Licensing Authority, if satisfied with the reply of the Licensee, may drop further proceedings in this matter.

(4) If the Licensing Authority is not satisfied with the reply of the Licensee, may suspend or cancel the Endorsement/ License as per the provisions of the Ordinance or these Rules and shall communicate the same (APSADA Form-50) to Licensee accordingly. SMS and e-mail alert shall be sent to the Licensee and concerned Aquaculture Seed Inspector in this regard.

(5) In case of defects are rectified by the Licensee and reported (Form- 51), the Licensing Authority shall revoke the suspension.

(6) License once cancelled cannot be re-issued under any circumstances.

CHAPTER – VIII
APPEAL

25. Procedure for Disposal of Appeal:

(1) Any person/firm aggrieved by the decision of the Licensing Authority, may within 30 (thirty) days from the date on which the decision is communicated to him/her/it and on payment of fee mentioned Annexure- IV, may appeal to the Controlling Authority (Form-52).

(2) The appellate Authority may entertain an appeal after the expiry of the said period of 30 (thirty) days if it is satisfied that the appellant was prevented by sufficient cause from filing the appeal in time.

(3) On receipt of an appeal, the appellate Authority shall examine the appeal. If it is satisfied with the explanation given and supporting documents submitted by the Licensee, it may revoke the suspension / cancellation imposed by the Licensing Authority.

(4) In case if it is not satisfied, it shall give an opportunity to the Licensee to appear in person and to present his/her case (APSADA Form No.53). After hearing the Licensee in person, if the appellate Authority is convinced, it may revoke the suspension / cancellation imposed by the Licensing Authority. If not convinced, it may uphold the suspension / cancellation imposed by Licensing Authority and may issue necessary orders (APSADA Format No.54).

(5) If the appellate Authority thinks if it is necessary, it may take the approval of the State Level Committee to take a final decision on appeal.

(6) Every order passed by the Seed Controlling Authority on an appeal preferred to it under this Ordinance shall be final.

CHAPTER -IX
MISCELLANEOUS

26. Forms and Formats :-

(1) The list of Forms and Formats to be used for various purposes under the Act and these rules are given in **Annexure-III.**

(2) In case if any modifications required in various processes, formats, forms, etc. for operational convenience, such modifications shall be proposed by the District Committee and shall be submitted to the Seed Controlling Authority for approval.

(3) The Seed Controlling Authority shall be empowered to approve with /without modifications or reject the modifications and effect such modifications by means of executive orders.

27. Powers to frame Regulations:

(1) In case if any procedures, process are to be elaborated or any clarifications are to be given with regard to the Act or these rules, the Controlling Authority may frame regulations in consistent with the Act and Rules.

(2) Whenever, regulations are to be framed under **sub-rule (1)**, the Controlling Authority shall prepare the draft regulations and shall submit it to the State Level Committee for approval.

Dr. POONAM MALAKONDAIAH
SPECIAL CHIEF SECRETARY TO GOVERNMENT (FAC)

ANNEXURE-I
MINIMUM NORMS FOR HATCHERIES
(See Rule. 14 (1))

I. Minimum Standards to be maintained in shrimp and fish seed hatcheries:

(A) Minimum Standards for Shrimp Hatchery (for *P. monodon*) (As per CAA guidelines)

(1) Hatchery operations can be broadly classified into brood-stock, larval/ post larval rearing and live feed management.

(2) Since production of healthy seed is a primary step towards disease free farming, shrimp hatcheries are required to maintain strict sanitation, quarantine and quality control management to ensure bio-security and health management. The following guidelines should be adopted by the shrimp hatchery to ensure production of standard and homogeneous quality seed, which are pathogen free.

(3) Water quality: Hatcheries should ensure good supply of oceanic quality seawater with the following optimal water quality characteristics in its rearing systems so as to avoid any stress to the larvae. This can be achieved by selecting a good site with the required water quality.

(4) Recommended water quality parameters for shrimp hatcheries

Parameter	Tolerable limit	Optimal Levels
Temperature	18-36	28-32
Salinity (ppt)	**2- 33**	**2- 33**
pH	7.0-9.0	8.0-8.4
Dissolved Oxygen (ppm)	Above 4	Above 4
Ammonia- N (ppm)	Up to 0.1	Less than 0.01
Nitrite-N (ppm)	Up to 0.1	Less than 0.01

(5) The water should be treated to remove all the suspended solids, dissolved nutrients and bacterial and viral pathogens. This could be achieved by following a good water treatment protocol, which includes- Sedimentation, Water chlorination and dechlorination, Filtration with sand filters, Filtration with activated carbon filter, Cartridge filtration up to 1 micron size and UV filtration/ Ozonation.

(6) Spawner/ broodstock quality: Vertical transmission of viral pathogens from mother shrimps to larvae through the ovarian tissue is one of the sources of introduction of viral pathogens into the hatchery system. In addition to that any stress caused to the spawners will result in spawning of poor quality eggs. The following measures should be strictly followed to obtain good quality eggs.

(7) The spawners should be individually in disinfected water and immediately transported individually under oxygen packing. Maintaining the spawners individually from the time of their capture is more important to avoid cross contamination with viral pathogens.

(8) The broodstock should be quarantined on arrival at the hatchery to prevent the entry of pathogens.

(9) Spawners/ broodstock, which do not have lesions, damage to gills, loss of appendages and red colouration, should only be selected.

(10) Prophylactic treatment of spawners/ broodstock with formalin at 50 ppm for 1 hour under strong aeration should be done before introducing the stock into the hatchery/maturation system.

(11) Spawners/ broodstock should be kept individually for acclimatization and screened for the presence of WSSV using a terminal portion of pleopods and for monodon baculo virus (MBV) from the faecal matter. Only spawners free from these pathogens should be taken into the hatchery/ maturation system.

(12) Induced maturation under captive conditions: Healthy, pathogen free, immature, broodstock, collected from wild, after the prophylactic treatment and acclimatization should be taken into the maturation tanks and allowed to recover from the stress of capture and transportation for 4-5 days. Then they are induced to mature through eyestalk ablation following the guidelines given below:

(13) Hard shelled, intermoult healthy female shrimps free from disease or injury having spermatophore in the thelycum should be selected for eyestalk ablation.

(14) The females should be above 100 g in size for ensuring good quality eggs.

(15) Eyestalk ablation is to be avoided for newly moulted and ready to moult female shrimps.

(16) Electrocauterisation is the best way of ablating eyestalk since it causes minimum stress.

(17) The ablated female shrimps are stocked in the maturation tanks along with unablated males @ 4 nos/ m2. Stocking of females and males in the ratio of 2: 1 ensures best mating success.

(18) Fresh feeds such as clam (*Meritrix sp.*), mussel (*Perna viridis*) and squid (*Loligo* sp.) having similar amino acid profile as shrimps, polychaete worms, Artemia biomass rich in long chain poly-unsaturated fatty acids are used as maturation feeds. Feed should be provided in sufficient quantities by visual observation. Feeds like crabmeat, which are carriers of pathogens, should be avoided.

(19) In addition to live feed items, pelleted feed fortified with polyunsaturated fatty acids (PUFA) such as arachidonic acid, eicosopentaenoic acid and decasohexaenoic acid should be used to ensure good egg quality.

(20) Water quality should be maintained under optimal conditions with 100 percent to 200 percent water exchange per day.

(21) Light intensity should be maintained low and the movement of personnel near the maturation tanks should not disturb the ablated shrimps.

(22) Spawning and hatching: Wild spawners/ induced matured stock should be disinfected with formalin treatment before placing them individually in spawning tanks.

(23) Feed should not be provided in the spawning tanks.

(24) Spawned eggs should be collected, washed thoroughly and disinfected by formalin dip treatment and re-suspended in fresh seawater for hatching.

(25) The quality of the eggs should be assessed within 2 hours after spawning when it will be easier to identify the fertilized and unfertilized eggs.

(26) If the quality of eggs is very poor, it is advisable to discard the eggs.

(27) Only active positively photo tactic nauplii should be collected for transfer to larval rearing tank.

(28) Nauplii should be tested for WSSV before transfer to larval rearing tank.

(29) Larval rearing/ nursery rearing: Nauplii from a single spawner should be reared separately to avoid cross contamination.

(30) Stocking density of nauplii should be maintained at 50 no./l in larval rearing tanks.

(31) Algal feed should be initiated before nauplii moult to zoea

(32) Algal feed should be given in required quantity from cultures that are in exponential stage of growth.

(33) Algal feed should be concentrated to avoid introduction of large quantities of algal culture water with its nutrient load.

(34) Water quality in the larval rearing should be monitored for ammonia, nitrite and bacterial load.

(35) Uniform aeration in all parts of the tanks should be provided through air diffuser stones placed @ 1 no/ sq. ft. This will keep the larvae and the algal feed uniformly distributed in the tank.

(36) During water exchange, appropriate mesh size nets should be used for draining the water so as to facilitate the removal of faecal matter without stressing the larvae.

(37) Artemia nauplii/ flake diets should essentially be used from Mysis II stage onwards along with the algal diet.

(38) Prophylactic use of antibiotics or other drugs should be avoided and only permitted antibiotics, chemicals, etc should be used. Probiotics should be used to the maximum extent possible.

(39) At PL5, the larvae should be collected from the larval rearing tanks, disinfected with formalin dip treatment and distributed in outdoor nursery tanks @ 15-20 nos/ litre.

(40) During later stages of nursery rearing, along with artemia nauplii, other live feed items like clam meat or balanced compounded feed can be used.

(41) Acclimatization to required salinity levels should be done gradually in the nursery stage of rearing.

(42) Only PL20 should be sold to the farmers after testing its quality with reference to presence of Monodon Baculo Virus (MBV) and White Spot Syndrome Virus (WSSV).

(43) At any stage of rearing, if WSSV is detected, the larvae from the whole tank should be discarded.

(44) For long distance transportation, the seed should be packed in thermocol boxes at reduced temperature.

(45) Supplementary feeds and raw materials should be properly handled and stored to avoid spoilage.

(46) Algal culture: Algal culture should be maintained in pure form in indoor; temperature controlled rooms and used as started culture for outdoor mass culture.

(47) It is advisable to use UV treated water for the pure culture of the algae, to prevent contamination.

(48) The quality of the mass culture should be tested before feeding in larval rearing tanks.

(49) Artemia hatching: Artemia cysts should be disinfected before keeping them for hatching.

(50) Hatched artemia nauplii should be segregated from the cyst wall and un-hatched cysts before being used as feed in larval rearing tanks.

(51) Only the nutritionally superior instar / nauplii should be used as feed.

(52) General bio-security procedures: The quality of intake water is very important for healthy operation of a shrimp hatchery. The pollution free water drawn from natural sources should be filtered and possibly, sterilized before usage.

(53) Movement of men, materials and paraphernalia between different sections of the hatchery should be controlled to avoid contamination.

(54) Foot pits, washbasins, toilets, etc. should be provided to ensure adequate sanitation and hygiene in the hatchery premises.

(55) The effluent water should be properly treated in a effluent treatment system before discharge. Regular monitoring of effluents to ensure environment standards stipulated.

(56) Hatchery should have adequate facilities for pathology lab like microbiology/PCR facilities to check the health condition of brooders/seeds at different stages.

(57) Diseased or moribund shrimps should be disposed off safely to prevent contamination of the stock.

(58) Bio-filters, tanks, buckets, nets, etc. should be thoroughly washed and cleaned using sanitizers and dried thereafter. Regular disinfections should be carried out to ensure bio safety.

(59) The hatcheries are required to monitor their effluents frequently so that the water quality standards remain within the limit stipulated in Table above. Considering the need for maintaining effluent discharge standards, effluent treatment system shall be mandatory for all hatcheries.

(60) It is essential that hatcheries maintain proper records of their activities in various sections, for verification by the supervising agencies and also to ensure traceability and easy market access.

(61) Shrimp hatcheries require large quantity of seawater for their day-to-day operations.

(62) The water used in the hatchery and let out is likely to be contaminated with dissolved or suspended organic matter, nutrients, chemicals, antibiotics, etc. When contaminated water is discharged into open, it is likely to result in environmental pollution that could be detrimental to the hatchery operation itself, since intake and discharge points are nearby.

(63) Therefore, it is necessary to properly treat the effluents so that the discharged water conforms to environment

(B) Minimum Standards for *L. vannamei* Shrimp Hatchery (As per CAA guidelines)

(1) The hatchery facilities should have strict bio-security control as detailed below:

(i) The physical separation or isolation of the different production facilities is a feature of good hatchery design. In existing hatcheries with no physical separation, effective isolation may also be achieved through the construction of barriers and implementation of process and product flow controls.

(ii) The hatchery facility should have a wall or fence around the periphery of the premises, with adequate height to prevent the entry of animals and unauthorized persons. This will help to reduce the risk of pathogen introduction by this route, as well as improve overall security.

(iii) Entrance to the hatchery should be restricted to the personnel assigned to work exclusively in this area and a record of personnel entering the facility should be maintained by the security personnel.

(iv) Hatchery staff should enter through a shower/dressing room, where they remove their street clothes and take a shower before entering another dressing room to put on working clothes and boots. At the end of the working shift, the sequence should be reversed.

(v) There should be means provided for disinfection of vehicle tyres (tyre baths at the gate), feet (footbaths containing hypochlorite solution at >50 ppm active ingredient), and hands (bottles containing iodine-PVP (20 ppm and/or 70% alcohol) to be used upon entering and exiting the unit.

(vi) Each functional unit of the hatchery should have independent water treatment facility and it should be isolated from all other water supply systems. Separate recirculation systems may be used for each functional unit of hatchery to reduce water usage and improve bio-security, especially in high-risk areas.

(vii) Water for the hatchery should be filtered and treated to prevent the entry of vectors and pathogens that may be present in the source water. This may be achieved by initial filtering through sub-sand well points, sand filters (gravity or pressure), or mesh bag filters into the first reservoir or settling tank. Following primary disinfection by chlorination, and after settlement, the water should be filtered again with a finer filter and then disinfected using ultraviolet light (UV) and/or ozone.

(viii) The water supply system may include use of activated carbon filters, the addition of ethylene diamine tetra acetic acid (EDTA) and temperature and salinity regulation.

(ix) The discharged water from the hatchery, should be held temporarily and treated with hypochlorite solution (>20 ppm active chlorine for not less than 60 min) or other effective disinfectant prior to discharge. This is particularly crucial where the water is to be discharged to the same location as the abstraction point.

(x) The seawater to be used in the facility must be delivered into a storage tank where it will be treated with hypochlorite solution (20 ppm active ingredient for not less than 30 minutes) followed by sodium thiosulfate (1 ppm for every ppm of residual chlorine) and strong aeration.

(xi) Used containers and hoses must be washed and disinfected with hypochlorite solution (20 ppm) before further use.

(xii) Each broodstock holding tank should have a separate set of implements which must be clearly marked and placed near the tanks. Facilities for disinfection of all the implements at the end of each day's use should be available.

(2) No waste water shall be released out of the hatchery without chlorination and dechlorination, especially to prevent the escape of the larvae into the natural waters. Effluent Treatment System (ETS) should be designed to include this provision.

(3) Only SPF broodstock cleared through the quarantine should be used in the hatchery for seed production.

(4) Use of pond-reared broodstock is strictly prohibited.

(5) Hatcheries involved in L. vannamei seed production should not use any other species within the hatchery premises.

(6) Prophylactic use of antibiotics or other drugs should be avoided and only permitted antibiotics, chemicals, etc should be used. Probiotics should be used to the maximum extent possible.

(7) Nauplii should not be sold to other hatcheries. Only tested and certified post larvae (PL) should be sold.

(8) PL should be sold only to the farmers who have registered with the Coastal Aquaculture Authority (CAA) specifically for the culture of L. vannamei. A copy of the Certificate of Registration issued by CAA should be retained by the hatchery operator for inspection.

(9) Detailed record of the seed production as well as sale including the name and address of the buyer/farmer should be maintained.

(10) Any disease outbreak in the hatchery should be reported immediately to CAA.

(11) CAA authorized personnel shall visit periodically to check the status of the broodstock, the seed production and sale.

(12) The hatcheries should maintain a record of the imported broodstock with details of source, quantity imported, the number of mortality, eggs produced,

nauplii produced, PL produced, PL sold, name and address of the farmer to whom sold.

(C) Minimum Standards to be maintained in Finfish Hatchery

(1). Brood Husbandry

(a) Brood raising

(i) Care should be taken in raising the Brood stock for recruitment of healthy prospective brood fish that prevents inbreeding depression and genetic drift in the Offspring.

(ii) Healthy yearlings of desired species are collected from Natural grounds or from farm reared stock from different hatcheries and kept under Quarantine conditions for 2-3 months to avoid unhealthy or diseased fish to the hatchery system.

(iii) The Size of the ponds for brood fish raising should be from 0.2 Ha to 0.5 Ha preferably rectangular in shape having a water depth of 1.5m.

(iv) Stocking rate should be 1500 kg/Ha.

(v) The ponds should be free from Aquatic weeds, Predatory and weed Fishes (Apply urea @ 100 to 250kg/Ha. After 12-24 hrs add Bleaching powder of 30% Chlorine @ 150 to 250 kg/Ha).

(vi) Organic & Inorganic fertilizers should be added to obtain the desirable level of Phytoplankton.

(vii) Lime Application should be done to maintain the water quality of the Brood pond.

(viii) Feeding should be done @ 2-3% of the Body weight Once daily.

(b) Brood Stock rearing

(i) Professional Brood stock (Bred once in earlier year) of 2-3 years Old should be Selected.
(ii) Stocking density should be 1000 kg/Ha.
(iii) 25-30% of the water of the pond should be replenished at least once in a month (from January to March).
(iv) Prospective Spawners are selected and reared at least 5-6 months before the breeding season.
(v) The stocking pattern of the main Species should be 60 % and the reaming should be 10 %.
(vi) The Fish should be fed with a formulated diet containing 30 % protein.

(2). Hypophysation

(a) Pituitary gland

(i) The freshly collected Pituitary gland (Donor fish -Common carp) should be preserved in Absolute Alcohol or Acetone.
(ii) The female brooder is administered with initial dose of injection and after 5-6 hrs final dose and the male usually one dose at the time of second dose given to the female.

(iii) The injection of Pituitary should be intramuscular or intra peritoneal at the range of 1-1.5 ml/fish.
(iv) The hatchery operators may use the below mentioned synthetic hormones for better spawning & Hatching.

(b) Ovaprim

(i) Analogue of 20 µg of Salmon Gonadotropin releasing Hormone and dopamine antagonist, domperidone at 10mg/l.

(ii) Administered to both female (0.25-0.80 ml/kg body weight) and male brood fish (0.10-0.20 ml/kg body weight) simultaneously in a single dose.

(iii) Female catla respond to a dose range between 0.40-0.50ml/kg body weight while rohu and mrigal respond to lower doses of 0.35ml/kg & 0.25ml/kg respectively.

(iv) Ovaprim has unique advantage over Pituitary as it has Consistent potency with reliable results, long shelf life and can be stored at room temperature, reduces handling and post breeding mortality and high percentage of Eggs, Fertilization and Hatching.

(v) The potency of Ovaprim is uniform and contains Salmon Gonadotropin releasing Hormone which is known to be 17 times more potent than Leutinising hormone Releasing hormone.

(c) Ovatide

(i) Indigenous cost effective and new hormonal formulation for induced breeding of fishes.
(ii) The dosage for females are 0.20-0.40 ml/kg for Rohu and mrigal, 0.40-0.50 ml/kg for catla, silver carp and grass carp.
(iii) The dosage for males 0.10-0.20 ml/kg for rohu, mrigal, 0.20-0.30ml/kg for catla and 0.20-0.25ml/kg for silver carp and grass carp.

Chinese Circular Hatchery

(3). Spawning Pool

(i) 3.5kg Brood fish should be stocked in a spawning pool provided with good quality water having 5-6ppm Dissolved O2.

(ii) Depending on the density of Brood stock, 0.6-1.0 m depth should be maintained.

(iii) Brood should be kept under shower before and after hormone administration.

(iv) Water current should be allowed one hour before the calculated spawning time to initiate the excitement of Spawner & Spawning.

(v) Speed of water current in the pool should be between 3-5m/second or two litres per second.

(vi) The Spawning of each female is usually completed within 1-1.5 hrs of initiation.

(vii) Before and after each operation, Spawning pool should be cleaned and disinfected with strong formaldehyde and Potassium permanganate.

(4). Egg Incubation Unit

(i) The egg delivery pipe from the Spawning pool opens directly into the Outer chamber of Hatching pool, Care should be taken to see the eggs are received on a water cushion to avoid injury to the eggs.

(ii) Mud plug the openings of the delivery pipe and spawn delivery pipe so that no blind space exists in the unit, that prevents the loss of eggs and spawn due to formation of 'Low oxygen packets' during operation.

(iii) Direction of duck-mouth inlets and speed of the water are maintained in such a way that it keeps the developing eggs away from the screen and wall of the incubation chambers.

(iv) The Speed of the water current is to maintained at 0.4-0.5m/sec for the first 12 hrs and then 0.1-0.2m/sec for next 6 hrs and then 0.3-0.4m/sec for the rest of the operation.

(v) Dissolved Oxygen should not be less than 4 ppm.

(vi) Cleaning the pool of floating suspended or settled debris including dead eggs and spawn is necessary for increasing the percentage of survival and recovery of the spawn.

(5). Larval Care: The freshly hatched larvae or post-larvae (4.6mm long and 1-1.5mg weight) utilize the yolk in the yolk sac for 72 hrs. 4th day Post larvae (6.5-7 mm long and 1.6-2.0 mg weight) should be fed with zooplankton i.e., rotifers, cladocerans and copepods.

(6). Prophylactic use of antibiotics or other drugs should be avoided and only permitted antibiotics, chemicals, etc should be used. Probiotics should be used to the maximum extent possible during the production of seed.

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ANNEXURE-II
QUALITY STANDARDS OF AQUACULTURE SEED
(See Rule. 7(1))

(1) **Shrimp Seed**:

Sl No.	**Parameter**	**Standard**
Physical parameters (Live sample is mandatory)		
1	Life Stage	PL10 or above for *L. vannamei*, PL 20 or above for *P. monodon* PL 15 or above for *P. indicus*
2	Colour of the PL	Normal
3	Average total length	> 11 mm
4	Size Variation (CV)	< 10 %
5	Number of rostral spines	3 & 4 or above
6	MGR	4:1 (100%)

7	Necrosis	Absent
8	Deformities	Absent
9	Fouling organisms	Absent
10	Endo-parasites	Absent
11	Hind gut	Full
Stress Tests: (Live sample is mandatory)		
1	Formalin Stress Test	> 90% Survival
2	Salinity Stress Test	> 90% Survival
3	Temperature Stress Test	> 90% Survival
Pathogen status : (both live and preserved samples)		
1	WSSV	Negative
2	EHP	Negative
3	MBV	Negative
4	Vibrio	Negative
5	IHHNV	Negative
6	HPV	Negative
Residues of Antibiotics and pharmacologically active compounds(both live and preserved samples)		Nil

(2) **Freshwater Prawn**:

Sl No.	**Parameter**	**Standard**
Physical parameters (Live sample is mandatory)		
1	Life Stage	PL 20 or above
2	Colour of the PL	Normal
3	Average total length	> 11 mm
4	Size Variation (CV)	< 10 %
5	Number of rostral spines	6 or above
6	MGR	4:1 (100%)
7	Necrosis	Absent
8	Deformities	Absent
9	Fouling organisms	Absent
10	Endo-parasites	Absent
11	Hind gut	Full
Stress Tests: (Live sample is mandatory)		
1	Formalin Stress Test	> 80% Survival
2	Salinity Stress Test	> 80% Survival
3	Temperature Stress Test	> 80% Survival
Pathogen status : (both live and preserved samples)		
1	WSSV	Negative
2	EHP	Negative
3	MBV	Negative
4	Vibrio	Negative

5	IHHNV	Negative
Residues of Antibiotics and pharmacologically active compounds(both live and preserved samples)		Nil

(3) **Crab (*Scylla sps.*)**:

Sl No.	**Parameter**	**Standard**
Physical parameters (Live sample is mandatory)		
1	Life Stage	Crablets > 1 gm size
2	Carapace Length	> 2 cm
3	Size Variation (CV)	< 30 %
4	Deformities	Absent
5	Fouling organisms	Absent
6	Parasitic Infection	Absent
Stress Tests: (Live sample is mandatory)		
1	Formalin Stress Test	> 80% Survival
2	Salinity Stress Test	> 80% Survival
3	Temperature Stress Test	> 80% Survival
Pathogen status : (both live and preserved samples)		
1	WSSV	Negative
2	EHP	Negative
3	MBV	Negative
4	Vibrio	Negative
5	IHHNV	Negative
6	HPV	Negative
Residues of Antibiotics and pharmacologically active compounds(both live and preserved samples)		Nil

(4) **Carp Seed**

S. No.	**Parameter**	**Standard**
1	Swimming Activity	Active
2	Feeding activity	Ready acceptability and gulping of natural or artificial food (from fry stage)
3	Scales	Shiny and Healthy
4	Body	Straight curvature, distinctly differentiated into head, trunk and tail
5	Gut	Full
6	Fins Condition	Fins shall be complete without deformities
7	Size variation	Coefficient of Variation (CV) shall be less

		than 15%
8	Health Status	The seed shall be free from all diseases
9	Residues of Antibiotics and pharmacologically active compounds(both live and preserved samples)	Nil

(5) **Catfish Seed:**

S. No.	Parameter	Standard
1	Swimming Activity	Active
2	Color	Black/ Pink body without any white patches on the body
3	Feeding activity	Ready acceptability and gulping of natural or artificial food (from fry stage)
4	Body	Smooth and Slimy Skin, barbels intact
5	Gut	Full
6	Fins Condition	Fins shall be complete without deformities or no wounds
7	Size variation	Coefficient of Variation (CV) shall be less than 10%
8	Health Status	The seed shall be free from all diseases
9	Residues of Antibiotics and pharmacologically active compounds(both live and preserved samples)	Nil

(6) **Tilapia Seed**

S. No.	Parameter	Standard
1	Swimming Activity	Active
2	Feeding activity	Ready acceptability and gulping of natural or artificial food (from fry stage)
3	Scales	Shiny and Healthy
4	Body	Normal
5	Gut	Full
6	Fins Condition	Fins shall be complete without deformities
7	Size variation	Coefficient of Variation (CV) shall be less than 15%
8	Health Status	The seed shall be free from all diseases
9	Residues of Antibiotics and pharmacologically active compounds(both live and preserved samples)	Nil

(7) **Sea bass Seed**

S. No.	Parameter	Standard
1	Swimming Activity	Active
2	Feeding activity	Ready acceptability and gulping of natural or artificial food (from fry stage)
3	Scales	Shiny and Healthy
4	Body	Normal
5	Gut	Full
6	Fins Condition	Fins shall be complete without deformities
7	Size variation	Coefficient of Variation (CV) shall be less than 15%
8	Health Status	The seed shall be free from all diseases
9	Residues of Antibiotics and pharmacologically active compounds(both live and preserved samples)	Nil

(8) The maximum permissible residue levels for Aquaculture Seed are listed under:

S. No.	Substance	Maximum Permissible Residual Levels (in ppm)
A	**Antibiotics and other Pharmacologically Active Substances**	
1	Chloramphenicol	Nil
2	Nitrofurans including: Furaltadone, Furazolidone, Furylfuramide, Nifuratel, Nifuroxime, Nifurprazine, Nitrofurantoin, Nitrofurazone	Nil
3	Neomycin	Nil
4	Nalidixic acid	Nil
5	Sulphamethoxazole	Nil
6	Aristolochia spp and preparations thereof	Nil
7	Chloroform	Nil
8	Chlorpromazine	Nil
9	Colchicine	Nil
10	Dapsone	Nil
11	Dimetridazole	Nil
12	Metronidazole	Nil

13	Ronidazole	Nil
14	Ipronidazole	Nil
15	Other nitroimidazoles	Nil
16	Clenbuterol	Nil
17	Diethylstilbestrol (DES)	Nil
18	Sulfonamide drugs (except approved Sulfadimethoxine, Sulfabromomethazine and Sulfaethoxypyridazine)	Nil
19	Fluroquinolones	Nil
20	Glycopeptides	Nil
21	Tetracycline	0.1
22	Oxytetracycline	0.1
23	Trimethoprim	0.05
24	Oxolinic acid	0.3

B	**Substances having anabolic effect and unauthorized substances**	
1	Stilbenes, stilbene derivatives and their sales and esters	Nil
2	Steroids	Nil
C	**Veterinary Drugs**	
1	Antibacterial substances, including quinolones	Nil
2	Antehelminitic	Nil
D	**Other substances and environmental contaminants**	
1	Organochlorone compounds including PcBs	Nil
2	Mycotoxins	Nil
3	Dyes	Nil
4	Dioxins	4 picogram per gram, fresh weight
E	**Pesticides**	0.3
1	BHC	0.3

2	Aldrin	0.3
3	Dieldrin	0.3
4	Endrin	0.3
5	DDT	5.0
F	**Heavy Metals**	
1	Mercury	1.0
2	Cadmium	3.0
3	Arsenic	75.0
4	Lead	1.5
5	Tin	250.0
6	Nickel	80.0
7	Chromium	12.0

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ANNEXURE-III

LIST OF FORMS
(See Rule. 26(1))

S.NO	CONTENTS	New Form No	APSADA Rule No.
1	SERVICE REQUEST FORM FOR ENDORSEMENT OF LICENSE/ REGISTRATIONS OF AQUACULTURE BUSINESS OPERATIONS:	7	12(15) (i)
2	SERVICE REQUEST FORM FOR LICENSE FOR AQUACULTURE BUSINESS OPERATIONS	8	12(16) (i)
3	ENDORSEMENT ON LICENSE / REGISTRATIONS OF AQUACULTURE BUSINESS OPERATIONS	21	12(15) (iv)
4	LICENSE FOR AQUACULTURE BUSINESS OPERATIONS	22	12(16) (iv)

5	REJECTION FOR ISSUE OF LICENSE/ENDORSEMENT FOR AQUCULTURE FARMS/ AQUACULTURE BUSINESS OPERATIONS.	23	12
6	SERVICE REQUEST FOR APPROVAL OF NEW FISH INGREDIANT OR PRODUCT/ FISH FEED FOR NEW SPECIES	24	15(6) & (7)
7	NOTICE TO LICENSEE FOR SAMPLE COLLECTION	25	18(1) (ii)
8	ACKNOWLEDGEMENT TO LICENSEE FOR THE SAMPLE COLLECTED	26	18(1) (iv)(a)
9	SAMPLE SENT TO REGIONAL LABORATORY FOR ANALYSIS	27	18(1) (iv)(b)
10	SAMPLE SENT TO REFERRAL LABORATORY FOR ANALYSIS	28	18(1) (iv)(c)
11	SERVICE REQUEST FORM BY LICENSEE FOR SENDING THE SAMPLE TO PRIVATE LABORATORY APPROVED BY THE GOVERNMENT FOR ANALYSIS	29	18(1) (iv)(e)
12	FORM FOR FORWARDING THE REQUEST OF LICENSEE FOR ANALYSIS TO ANY OTHER GOVT APPROVED LABORATORY	30	18(1) (iv)(e)
13	ADDITIONAL SAMPLE SENT TO REGIONAL LABORATORY FOR ANALYSIS ON REFUSAL TO ACCEPT SAMPLE BY THE LICENSEE	31	18(1) (iv)(f)
14	REPORT OF SAMPLE ANALYSIS	32	19 (7)
15	SERVICE REQUEST FORM BY LICENSEE FOR TESTING OF SAMPLE IN REFERRAL LABORATORY ON THE RESULT OF REGIONAL LABORATORY	33	20(2)
16	RECORD /REPORT OF INQUEST	34	21 (9)
17	INSPECTION REPORT AFTER INQUEST	35	21 (10)
18	SERVICE REQUEST FORM FOR CERTIFICATION OF HATCHERY / LARVAL REARING CENTER	36	23 (3) (i)
19	INSPECTION REPORT FOR CERTIFICATION OF THE HATCHERY	38	23 (3) (v)
20	CERTIFICATION OF HATCHERY	40	23 (3) (ix)
21	SERVICE REQUEST FORM FOR CERTIFICATION OF SEED PRODUCED FROM	42	23 (4) (i)

	CERTIFIED HATCHERY		
22	TECHNICAL AGENCY INSPECTION REPORT FOR CERTIFICATION OF SEED PRODUCED FROM CERTIFIED HATCHERY	44	23 (4) (x)
23	CERTIFICATION OF SEED PRODUCED FROM CERTIFIED HATCHERY	46	23 (4) (xi)
24	NOTICE TO THE LICENSEE FOR SEIZURE AND FORFEITURE OF THE PROPERTY	48	25 (1)
25	SHOW-CAUSE NOTICE FOR SUSPENSION / CANCELLATION OF LICENSE	49	26 (1)
26	SUSPENSION / CANCELLATION OF LICENSE	50	26 (5)
27	RECTIFICATION SUBMISSION BY LICENSEE TO REVOKE LICENSE	51	26 (5)
28	APPEAL TO THE APPELLATE AUTHORITY ON THE ORDER PASSED BY THE LICENSING AUTHORITY	52	27 (1)
29	NOTICE TO THE APPELLANT BY THE APPELLATE AUTHORITY TO APPEAR IN PERSON	53	27 (2)
30	DISPOSAL OF APPEAL BY APPELLANT AUTHORITY	54	27 (3)

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ANNEXURE-IV

(See Rule.11 (1))

1. REFERRAL AQUACULTURE SEED ANALYSIS LABORATORY

Sl. No.	District	Location of the Laboratory	Facility available				
			Water analysis, Soil analysis, Microbiology	PCR (both nested and RTPCR)	ELISA	LC MSMS	GC MSMS
1).	East Godavari	SIFT, Jagannaikpur Kakinada	✓	✓	✓	✓	✓

2. REGIONAL AQUACULTURE SEED ANALYSIS LABORATORIES

Sl. No.	District	Mandal	Location of lab	Facility available				
				Water &Soil Analysis	Micro Biology	Feed Lab	PCR (both nested and RT PCR)	ELISA
1)	**Srikakulam**	Polaki, Narasannapet,Saravakota, Jalumeru,Pathapatnam,Kotthuru, Bhamini, Hiramandalam.	Narasannapeta, Srikakulam	✓	✓	X	X	X
2)		Santhabommali, Kotabommali, Tekkali, Nandigam, Srikakulam	Near Tahsildar Office, Tekkali, Srikakulam	✓	✓	X	X	X
3)		Vajrapukotthuru, Mandasa	Palasa, Srikakulam	✓	✓	X	X	X
4)		Ichapuram, Sompeta,Kaviti	Near VenkateswaraSwamy temple, Sompeta, Srikakulam	✓	✓	X	X	X
5)		Gara, Srikakulam,Etcherla,Ranasthalam,R. Amadalavalasa,Vangara,Palakonda.	Illishpuram, Office of JD Fisheries, skm	✓	✓	✓	✓	X
6)	Vizianagaram	all the mandals in vizianagaram	Vizianagaram	✓	✓	X	X	X
7)	Visakhapatnam	Nakkapalli, Payakaraopeta	Payakaraopeta, Visakhapatnam	✓	✓	✓	✓	X
8)		S.Rayavaram, rambilli, Atchuthapuram, V.Madugula, Devarapalli	Near ICDS office, Yelamanchili, Visakhapatnam	✓	✓	X	X	X
9)		Parawada, Pedagantyada, Bhimili	Bheemili-Kothru, viskhapatnam	✓	✓	X	✓	✓
10	E.G.Dist.	Pedapudi, karapa, kajulur, Tallarevu,	Nadakuduru, KarapaMandal, E.G.Dist.	✓	✓	X	X	X

		Bikkavolu, Anaparthi, Kadiam						
11		Katrenikona, I.Polavaram, Ainavailli, Mummidivaram	Mummidivaram, E.G.Dist.	✓	✓	X	X	X
12		Allavaram, Amalapuram, Ambajipeta, Uppalaguptam.	BesideVeterienaryTrgInstitue, Idarapalli, E.G.Dist.	✓	✓	✓	✓	X
13		Kapileswarapuram, K.Gangavaram, Alamuru, Mandapeta, Rayavayam, Atreyapuram, Ramachandrapuram	Draksharamam, E.G.Dist.	✓	✓	X	X	X
14		Malkipuram, Sakhinetipalli, Razole, Mamidikuduru, P.Gannavaram, Kothapeta	Tahasildaroffice ,Razole, E.G.Dist.	✓	✓	X	X	X
15		Kirlampudi, Yeleswaram, Prattipadu, Samalkota, Gandepalli, Peddapuram, Thondangi, Jaggampeta, U.kothaplli, Pithapuram, GollaproluRajamahendravaram, korukonda, Seethnagaram, Rajanagaram, Gokavaram	Near MPDO Office , Pithapuram	✓	✓	X	✓	X
16	W.G. Dist.	Narasapuram, Mogaltur	Narasapuram,W.G.Dist.	✓	✓	X	X	X
17		Bhimavaram, Palakoderu, Undi, Kalla	Bhimavaram, W.G.Dist.	✓	✓	✓	✓	✓
18		Marteru, Penumantra, Attili,	Marteru, W.G.Dist.	✓	✓	X	X	X

		Ganapavaram, Peravali, Nidadavolu, Undrajavaram						
19		Bhimadole, Nidamarru, Unguturu, Kovvur, Chagallu	BesideMeeSeva , Opp to MRO Office, Bhimadole, W.G.Dist.	✓	✓	X	X	X
20		Palakollu, Achanta, Yaelamanchili,Pengonda	Palakollu, W.G.Dist.	✓	✓	✓	✓	✓
21		Eluru, Pedapadu, Denduluru	Eluru, W.G.Dist.	✓	✓	X	✓	✓
22		Undi, kalla, akiveedu	Akiveedu, W.G.Dist	✓	✓	✓	X	X
23	Krishna dist.	Gudivada, Nandivada, Pedaparupudi	Gudivada, Krishna Dist.	✓	✓	✓	✓	X
24		Machilipatnam, Pedana, Bantumilli, Kruthivennu	Machilipatnam, Krishna Dist.	✓	✓	✓	✓	X
25		Avanigadda, Nagayalanka, Koduru	Avanigadda, Krishna Dist.	✓	✓	X	✓	X
26		Kaikaluru, Kalidindi, Mandavalli, Mudinepalli	kaikaluru, krishna dist.	✓	✓	✓	✓	✓
27		Penamaluru(LCM SMS &GCMSMS facilities to be provided)	Penamaluru, Kankipadu.	✓	✓	✓	✓	✓
28	Guntur Dist.	Bapatla, P.V.palem,Katlapalem, Peddanandipadu, Kakumanu	Bapatla, Guntur Dist.	✓	✓	X	X	X
29		Repalle, Nagaram, Nizampatnam, Cherukupalli, Bhattiprolu	Repalle, Guntur Dist.	✓	✓	✓	✓	✓

30		Vinukonda, Bollapalli, Nujendla, Epuru, Savalyapuram, Narasaraopeta, Sattenapalli, Gurajala	Vinukonda, Guntur Dist.	✓	✓	X	X	X
31	Guntur District	Ponnuru	Nidabrolu, Guntur Dist.	✓	X	X	X	X
32	Prakasam Dist.	Vetapalem	Desaipeta, Vetapalem, Prakasam Dist.	✓	✓	X	X	X
33		Singarayakonda	Singarayakonda, Prakasam Dist.	✓	✓	✓	X	X
34		Ongole	Ongole, Prakasam Dist.	✓	✓	✓	✓	X
35	Nellore Dist	Kavali, Bogole, Allur	Near MROoffice,Kavali, Nellore	✓	✓	✓	✓	X
36		Vidavalur, Buchireddypalem, Sangam, Indukurpet, T.P Gudur, Nellore rural, Muthukur, Venkatachalam, Manubolu, Kota, Vakadu, Chillakur, Chittakur and Kovur.	Bhaktavatsalanagar, near RTO office, Nellore.	✓	✓	✓	✓	✓

3. LIST OF EQUIPMENT REQUIREMENT IN LABORATORY

1.**Water and Soil Analysis Lab**	
Equipments& Instruments'	Salinometer / Refractometer, pH meter, DO meter, Turbidity meter, UV Visible Spectrophotometer, Flame photometer, EC meter, Redox meter, Kjeldahl distillation unit for nitrogen, Electronic balance.

Lab facilities	Furniture, Desk top, Glassware, Plastic ware, Cupboard& racks etc. and Test Kits, AC unit
	Partition for sample collection, preservation room, analysis room, water supply, Electricity arrangements, etc., safety arrangements for instruments as per Standard Operating Procedures
2.**Microbiology/Disease Diagnosis**	
Equipments& Instruments	Laminar flow, Hot air oven, Incubator, Autoclave, Colony counter, Microscope & Camera, Electrical balance.
Lab facilities	Furniture, Desk top, Glassware, Plastic ware, Cupboard& racks etc. and Test Kits, AC unit
	Partition for sample collection room ,inoculation room, Incubation chamber, sterilization room, water supply, Electricity arrangements, Cupboard& racks etc, safety arrangements for instruments as per Standard Operating Procedures
3.**Seed Quality Testing / Disease Diagnosis (PCR Lab)**	
Equipments& Instruments	Real-time PCR , Computer with printer, Refrigerated centrifuge, Table top centrifuge, -20^{o}c freezer with stabilizer, Vortex shaker, Thermal block, Domestic Refrigerator, Dry bath, Water bath, Ultrapure water purifier, Adjustable micropipettes, Electronic weighing balance.
Lab facilities	Furniture, Desk top, Glassware, Plastic ware, Cupboard& racks etc. and Test Kits, AC unit
	Partition for sample collection room ,DNA extraction ,DNA multiplication chamber, DNA detection room, Seed quality testing chamber, water supply, Electricity arrangements, safety arrangements for instruments as per Standard Operating Procedures

4. USER CHARGES FOR ANALYSIS TESTING AT AQUACULTURE SEED LABORATORIES

Sl. No.	Parameters	Fee
A. Water Quality Analysis Charges:-		
1.	pH, Temperature, D.O., Alkalinity, Hardness (calcium hardness and magnesium hardness),TDS,CO_2 and COD	100
2.	Salinity & pH	Free
3.	Plankton analysis	Free
4.	BOD	100

5.	COD	100
6.	Ammonia	100
7.	Nitrite	50
8.	Nitrate	90
9.	Phosphates	70
10.	Iron	50
11.	H_2S	80
12.	Chlorine	60
13.	Total Parameters	700
B. Soil Analysis Charges:-		
1.	Soil pH	Free
2.	Soil organic carbon	60
3.	Soil available Nitrogen	100
4.	Soil available Phosphates	50
5.	Other Soil minerals	50
C. Microbiology & Histopathology Charges:-		
1.	Animal health check up by microscopic observation	Free
2.	Total Plate Count	100
3.	*Pseudomonas*	100
4.	*Aeromonas*	100
5.	Total Vibrio count	100
6.	Drug sensitivity	400
7.	Luminescence Bacteria	100
8.	Bio chemical tests	500
9.	Fungal tests	100
10.	Histopathology slide preparation	300
11.	*Streptocococcus*	200
12.	*Staphylococcus*	200
13.	*Flavobacterium*	200
14.	*Shegella*	200
15.	*E. coli*	200
16.	Any other bacteria	200
D. Quality Analysis Charges:-		
1.	Seed Quality for and health check up of prawn and shrimp farmers	Free
2.	Seed quality for hatchery operators	50
	Nested PCR Method:	
3.	WSSV	750
4.	IHHNV	600
5.	EHP	750
6.	MBV	600
7.	HPV	600

8.	IMNV	750
9.	EMS	750
	RT-PCR Method:	
10.	WSSV	800
11.	EHP	800
12.	IHHNV	800
13.	Vibrio species	1200
Sl. No.	Parameters	Fee
	Antibiotics Residue Analysis Charges (ELISA):	
14.	Chloramphenicol	1500
15.	Nitrofuran metabolite – AOZ	1500
16.	Nitrofuran metabolite-AMOZ	1500
17.	Nitrofuran metabolite -AHD	1500
18.	Nitrofuran metabolite - SEM	1500
19.	Malachite green	1500
20.	Crystal violet	1500
21.	Sulphonamides (each compound)	1500
22.	Tetracyclines (each compound)	1500
	LCMSMS & GC MSMS Method:	
23.	Dyes (MG, LMG, CV, and LCV)	7000
24.	Antibiotics: (AOZ,SEM,AHD,AMOZ)	3500
25.	Sulphonamides (11 compounds)	4000
26.	Flouroquinolones (9 compounds)	4000
27.	Chloramphenicol	1700
28.	Tetracycline with 4 epimers (3 compounds)	3500
29.	Nitroimidazoles	3500
30.	Oxalinic acid and Nalidixixic acid	2300
31.	Organochlorine pesticides group and NDL PCBs	4700
32.	Steroids and Stillbenes (6 compounds)	5500
33.	Aflatoxin (B1& B2)	2300
34.	Formaldehyde	1200
35.	Anthelmintics (Ivermectin&Emamectin)	2800
36.	Heavy metals (As, Hg, Pd& Cd)	2300

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Dr. POONAM MALAKONDAIAH
SPECIAL CHIEF SECRETARY TO GOVERNMENT (FAC)

ANNEXURE- V
LIST OF OFFENSES & PENALTIES AND APPEAL CHARGES
(See Rule. 22 (1))

Note: Sufficient documentary evidence (such as invoices, photos, videos, lab reports, enquiry report, inquest report, geo-coordinates and others) shall be uploaded by the Aquaculture Inspector or sample collector)

S. No.	Offense	Penalty					Appeal
		Suspension of licence	Seizure of stock	Cancellation of licence	Fine by dept.	Prosecution (Fine/ impri/ forfeiture)	
1.	Operation of Hatcheries / LRC/ Fish Seed Farms without licence	-	Yes	-	Rs. 1,00,000	Yes	-
2.	Distribution/Sale of uncertified Shrimp Seed (1st instance)	-	Yes	-	Rs. 50,000	-	-
3.	Distribution/Sale of uncertified Shrimp Seed (2nd instance)	Yes	Yes	-	Rs. 1,00,000	Yes	Yes
4.	The License was obtained by concealment or misrepresentation as to an essential fact/s;	-	Yes	Yes	Rs. 1,00,000	-	Yes
5.	Preventing Seed Inspector from exercising his/her powers (1st time)	-	-	-	Rs. 25,000	-	-
6.	Preventing Seed Inspector from exercising his/her powers (2nd time)	Yes	-	-	Rs. 50,000	-	Yes
7.	Preventing Seed Inspector from exercising his/her powers (3rd time)	-	Yes	Yes	Rs. 1,00,000	Yes	Yes
8.	Not providing Aquaculture Seed when Seed Inspector / Sample Collector asks for (1st time)	-	-	-	Rs. 25,000	-	-
9.	Not providing Aquaculture Seed when Seed Inspector / Sample Collector asks for (2nd time)	Yes	-	-	Rs. 50,000	-	Yes
10.	Not providing Aquaculture Seed when Seed Inspector / Sample Collector	-	-	Yes	Rs. 1,00,000	Yes	Yes

	asks for (3rd time)						
11.	Physical attack on Seed Inspector or any other staff while performing his/her duty	Yes	Yes	-	Rs. 50,000	Yes	-
12.	Sub-standard Aquaculture Seed proved by lab report for the 1st time during the licence period	-	Yes	-	Rs. 50,000	-	-
13.	Sub-standard Aquaculture Seed proved by lab report for 2nd time during the licence period	Yes	Yes	-	Rs. 1,00,000	-	Yes
14.	Sub-standard Aquaculture Seed proved by lab report for 3rd time during the licence period	-	Yes	Yes	Rs. 2,00,000	Yes	Yes
15.	If licensee carryout any Aquaculture Seed production operations other than for which license is obtained	Yes	Yes	-	Rs. 50,000	-	Yes
16.	In case of Aquaculture Seed produced in other states / countries and does not comply with the quality standards and/or uncertified (1st instance)*	Yes	Yes	-	Rs. 50,000	-	Yes
17.	In case of Aquaculture Seed produced in other states / countries and does not comply with the quality standards and/or uncertified (2nd instance) *	-	Yes	Yes	Rs. 1,00,000	-	Yes
18.	Unauthorized Collection and sale of wild seed (1st instance)	--	Yes	--	Rs. 50,000	--	--
19.	Unauthorized Collection and sale of	--	Yes	--	Rs. 1,00,000	Yes	Yes

	wild seed (1st instance)						
20.	In case of using farm reared L.vannamei as brood stock for producing the seed in hatcheries	--	Yes	Yes	Rs. 2,00,000	--	--
21.	Production/sale/ Distribution of banned exotic species	--	Yes	Yes	Rs. 1,00,000	--	--
22.	Any other violation under Aquaculture Seed Act / Rules	Yes	Yes	-	Rs. 50,000	-	Yes

23. Fee to be paid for appeal: Rs. 5,000/- per appeal

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ANNEXURE- VI
AQUACULTURE SPECIES FOR WHICH CERTIFICATION IS NEEDED FOR SALE OF SEED
(See Rule. 21(1))

1. Finfishes
   - (a) Indian Major Carps (*Catla catla, Labeo rohita, Cirrhinus mrigala*) and improved varieties
   - (b) Exotic Carps (*Hypophthalmichthys molitrix, Ctenopharyngodon idella, Cyprinus carpio*) and its improved varieties
   - (c) Cat fishes (*Pangasius pangasius, Clarius batrachus, Mystus gulio, Ompak pabda, Heteropneustes fossilis)*
   - (d) Murrels *(Channa sps.)*
   - (e) Pearl spot (*Etroplus suratensis*)
   - (f) Climbing perch (*Anabas testudineus*)
   - (g) Sea bass (*Lates calcarifer*)
   - (h) Tilapia (*Oreochromis niloticus*) and its improved varieties
   - (i) Milk Fish (*Chanos chanos*)
   - (j) Grey Mullet (*Mugil cephalus*)
   - (k) Cobia (*Rachycentron canadum*)
   - (l) Pompano (*Trachinotus sps.)*
   - (m)Grouper (*Epinephelus sps.*)
   - (n) Snapper (*Lutjanus sps.*)
2. Shell fishes:
   - (a) *Penaeus monodon*
   - (b) *Penaeus indicus*
   - (c) *Litopenaeus vannamei*
   - *(d) Penaeus japonicus*

(e) *Macrobrachium malcomsonii*
(f) *Macrobrachium rosenbergii*
(g) *Scylla serrata*
(h) *Scylla olivacea*

3. Molluscs:
   (a) Oysters
   (b) Mussels
   (b) Clams
   (c) Snails
4. Sea weeds:
   (a) Red algae - *Gelidium, Gracilaria, Gelidiella, Kappaphycus*
   (b) Brown algae - *Sargassum, Laminaria*

Note: Seed of any species other than mentioned above (native or permitted exotic species) shall also be certified.

Ban on certain exotic species: Production / distribution / sale of seed and aquaculture of certain exotic species (which became a threat to native species and environment) shall be banned.

Indicative list of banned species: - *Clarius gariepinus* (African Cat Fish). APSADA may include any other species under this list by means of executive orders.

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